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THE EFFECT OF A COLLEGIATE RETAILING PROGRAM UPON SUBSEQUENT CAREER DEVELOPMENT.

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STUDENTS WHO HAD COMPLETED THE RETAILING PROGRAM IN 1959-61 AND OTHER GROUPS IN THE UNIVERSITY OF MINNESOTA GENERAL COLLEGE WERE COMPARED WITH RESPECT TO BACKGROUND CHARACTERISTICS AND OCCUPATIONAL EXPERIENCE PATTERNS. DIFFERENCES BETWEEN THE TWO GROUPS WERE NOT SIGNIFICANT IN HIGH SCHOOL RANK, A COLLEGE APTITUDE TEST, AND AN ENGLISH TEST. IN THE GENERAL APTITUDE TEST BATTERY-GENERAL, THE RETAILING GROUP HAD SIGNIFICANTLY LOWER SCORES. ACADEMIC ACHIEVEMENT BY THE RETAILING GROUP WAS BETTER THAN THAT OF AN UNSELECTED GENERAL COLLEGE GROUP, BUT DID NOT DIFFER SIGNIFICANTLY FROM THAT OF A GROUP WHICH COMPLETED TWO YEARS OF GENERAL STUDIES. ON THE STRONG VOCATIONAL INTEREST BLANK, THE RETAILING GROUP HAD A STRONGER TENDENCY TOWARD THE BUSINESS-CONTACT SCALE. NO OTHER SIGNIFICANT INTEREST DIFFERENCES WERE FOUND, AND ALL GROUPS TENDED TOWARD LOW INTERESTS IN THE SOCIAL SERVICE OCCUPATIONAL PATTERNS. NO SIGNIFICANT DIFFERENCES WERE FOUND IN THE TYPE OF THE STUDENT'S FIRST JOB, OR THE METHOD OF OBTAINING IT. THIS DOCUMENT IS VOLUME 4, NUMBER 2 OF "THE GENERAL COLLEGE STUDIES," 1967-68. (WO)

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# THE EFFECT OF A COLLEGIATE RETAILING PROGRAM UPON SUBSEQUENT CAREER DEVELOPMENT

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The General College embarked upon its first venture in post-high school occupational education more than twenty years ago. Its first program in this field offered campus instruction in marketing, retail store management, and salesmanship, in combination with a required and coordinated internship in a Twin Cities retail establishment. Hundreds of students have completed the sequence, and the program, or aspects of it, has been widely imitated. It is now part of the curriculum offered by the College's Division of Business Studies.

The division is presently engaged in an energetic self-evaluation. This issue of the General College Studies offers its readers selected portions of the summary and conclusions of research by Dr. Roger Larson which attempts to assess how effectively instruction in the retailing and selling sequence meets the needs of the students enrolling in it. Another segment of the research, including a valuable bibliography, will appear in a forthcoming number of this publication. The full study is available in the University of Minnesota Walter Library, or from University Microfilms, Ann Arbor, Michigan.

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# THE EFFECT OF A COLLEGIATE RETAILING PROGRAM UPON SUBSEQUENT CAREER DEVELOPMENT

## INTRODUCTION

Since 1945 the General College of the University of Minnesota has offered a two-year collegiate level post-high school occupational program in retailing and selling. The program comprises general education courses, related classroom instruction in marketing, retail store management and salesmanship, and a coordinated internship requirement in a local store with a minimum of 180 hours of work. A certificate is awarded by the University of Minnesota to students who successfully complete the sequence. Those students who also complete the requirements for an Associate in Arts degree are awarded that degree in addition to their certificate. The purposes of the program are to prepare students to enter into responsible positions in retailing and selling and to develop those abilities that will be needed for advancement to levels of management or mid-management.

Periodic follow-up studies have attempted to determine the extent to which graduates of the program have entered and remained in retailing, selling or related marketing occupations, and to assess the progress they have made as measured by promotions to positions of increased responsibility. Determan (1949) conducted a very extensive study of this nature. Since 1949 a series of less formal follow-up surveys have concerned themselves with basically the same objectives. No attempt has been made, however, to compare background factors, college achievement, and later occupational experience of students who participate in the program with General College students who do not participate.

## NEED FOR THE STUDY

A prime objective of vocational education is to provide training relevant to successful entry into, or advancement in, a specific occupational field. Although often extremely difficult to measure, the intended outcomes of occupational training commonly include more rapid progress to positions of greater responsibility; greater job satisfaction; and more persistence in the broad occupational field for which training was given. In distributive education, numerous studies have attempted to investigate the employment history of former students, but little attempt has been made to compare the employment patterns of graduates of specific vocational programs and graduates of more general education programs. Similarly, few studies have been made to compare, in terms of some important background factors, enrollees of specific vocational programs with general education students.

A comparative study of this nature seems particularly relevant at this time. The General College is attempting to expand its offerings in occupational education. These efforts have a twofold purpose--to provide a greater variety of improved programs for its own student population and to provide leadership to other junior colleges in experimentation and program development in occupational education.

In a broader sense, however, there is a need for research to determine the degree to which post-high school occupational programs attain the objectives for which they are designed. To provide for better selection, placement and general counseling service, it is necessary to study student populations from both general and occupational programs in order to identify differences and similarities in background factors, achievement levels, and career choices.

As a basis for curriculum evaluation and improvement, there is also a need to study the employment experience of graduates of two-year occupational programs.

Meyer and Logan in their "Review and Synthesis of Research in Distributive Education" (1967) found comparatively few research studies specifically dealing with post-high school distributive education; those studies that do exist are centered (mostly) on curriculum development rather than on student characteristics or occupational experience.

Although this study does not attempt to establish any causal relationships between educational experience and job selection or success, it does provide information on how post-high school vocational and post-high school general students differ, both in terms of background variables and in terms of job histories following college experience.

## DESIGN OF THE STUDY

The main purpose of this study is to compare students who have successfully completed the General College Retailing and Selling Program with General College students who have not participated in the program. More specifically, an attempt was made to identify differences that exist in background characteristics between the students in retailing and selling and those not in retailing and selling. Background variables that were analyzed included those associated with:

1. academic ability
2. achievement
3. vocational interest and experience
4. parental occupation

In addition, the occupational experience patterns of the two populations were compared. Factors considered were the following:

1. type of entry job
2. number of jobs since graduation
3. length of time in retailing or related job
4. type of present job
5. job satisfaction

A secondary purpose was to determine whether any differences that existed between retailing students and non-retailing students in the years 1957-1959 are still in existence in recent enrollees. These purposes were translated into the following major hypothesis:

1. There are no differences between retailing and selling students and non-retailing and selling students on selected background characteristics.
2. There are no differences in the occupational patterns of the two populations.

The sample studied is comprised of the following six groups:

Group I. All regular day school students who completed the three-quarter Retailing and Selling internship sequence and received their certificates sometime during the 1958-59, 1959-60 or 1960-61 school years. This group was made up of 62 students.

Group II. A two-stage random sample from entering General College freshmen for fall quarter, 1958. (These students had been included in the ten-year General College follow-up study and had, therefore, been located as of fall, 1965.) This group was made up of 80 students.

Group III. A two-stage random sample from entering General College freshmen for fall quarter, 1958, who had completed a minimum of six quarters of work while enrolled in the General College. (As in the case of Group II, these students had been included in the ten-year General College follow-up study and had, therefore, been located as of fall, 1965.) This group contained 80 students.

Group IV. All regular day school students who completed the one-year Retailing and Selling internship sequence and received their certificates during the 1965-66 and 1966-67 school years. This group consisted of 47 students.

Group V. A random sample of students entering the General College fall quarter, 1964. This group was made up of 50 students.

Group VI. A random sample of students entering the General College fall, 1964, who had completed a minimum of six quarters of work while enrolled in the General College. This group included 60 students.

The first hypothesis was investigated for the primary groups (groups I, II, III), students enrolled in the 1957-1959; and also for the secondary groups (groups IV, V, VI), students admitted in 1964. Differences in the characteristics for these two groups were noted and discussed. Employment experience information was not obtained on the secondary sample groups because these students had not been employed for a long enough period to have established a meaningful employment pattern. Therefore, the second hypothesis was not investigated for the secondary groups.

The procedure used for this study was to select a sample group representing a target population of General College students who had elected and successfully completed the Retailing and Selling Program. This sample group was then compared with another sample group representing a target population of former General College students

who had not participated in the Retailing and Selling Program but who had instead followed a more general program. The non-retailing and selling population was subdivided to select a sub-sample of students who had completed a minimum of six quarters in the General College. Since the retailing and selling sample was made up entirely of graduates of the sophomore sequence, the subsample was selected to provide a sample group similar to the retailing and selling students in the amount of college work completed. Three similar sample groups were then selected from more recent General College enrollees in order to make the same comparisons as on the primary target population.

The background data were collected entirely from internal University sources. The information concerning work experience since the students left the General College was obtained through the use of a mailed questionnaire. Questionnaires were sent to 190 former students. Returns were received from 157, which constituted a 82.6 percent return. The data were analyzed either by means of one-way analysis of variance or by using the chi-square technique, depending upon whether the variable involved was continuous or categorical.

## FINDINGS OF THE STUDY-PRIMARY POPULATIONS

Hypothesis 1. There are no differences between retailing and selling students and non-retailing and selling students on selected background characteristics.

Table I summarizes the information regarding academic ability and achievement for the three primary populations. Of the three groups, the retailing and selling group was found to have a higher mean high school percentile rank and a higher mean American Council on Education examination (ACE) score than the other groups, but this difference was not satistically significant. On the Cooperative

English Test, which was given to students prior to the time they enrolled in the University, the retailing and selling group had a mean score higher than group II but lower than group III. As in the cases of the High School Rank (HSR) and the ACE score, the differences were not significant at the .05 level. The one measure related to ability on which a statistically significant difference did exist was the General Aptitude Test Battery-General (GATB-G). The mean scores for the three groups were 98.5, 101.1 and 107.5 respectively. This difference was significant at the .005 level. On the GATB-Verbal and the GATB-Numerical, the differences in mean scores for the three groups were not significant, although for both tests group III, the restricted non-retailing group, had higher mean scores than either of the other two groups.

In general, the analysis of the factors usually related to academic potential did not indicate that those students who completed the General College vocational sequence in retailing and selling were any different from those who elected the general curriculum. With the exception of the scores on the GATB-G, the differences in mean scores were not only minor but they did not vary in any consistent manner.

Analysis of the data related to academic achievement was complicated by a number of factors. Many General College students take courses offered through other colleges of the University; often up to one-half of their total credit load per quarter consists of non-General College courses. Since satisfactory achievement in General College is a prerequisite for taking outside courses, those students who take part of their program in non-General College courses tend to be the more able or more conscientious students. However, since the competition is greater in the courses taken in other units

Table I

Measures of Ability and Achievement

Groups I, II and III

| Name of Variable | Mean Scores I | II | III | Test Statistic | Probability[a] |
|---|---|---|---|---|---|
| High School Rank | 38.0 | 32.4 | 34.6 | 1.139 | .25 < P < .50 |
| ACE | 24.8 | 23.6 | 20.8 | < 1.000 | .50 < P |
| Cooperative English | 22.5 | 20.8 | 26.4 | 1.121 | .25 < P < .50 |
| GATB-G | 98.5 | 105.1 | 107.5 | 6.178 | P < .005 |
| GATB-V | 100.1 | 100.7 | 101.3 | < 1.000 | .50 < P |
| GATB-N | 104.6 | 102.4 | 105.9 | 1.523 | .10 < P < .25 |
| Grade Point Average | 2.2 | 1.9 | 2.2 | 5.567 | P < .005 |
| Number Credits - General College | 76.9 | 45.8 | 73.8 | 48.883 | P < .005 |
| Number Credits - Total | 85.7 | 53.3 | 86.3 | 45.872 | P < .005 |
| Associate in Arts Degree | Percents | | | | |
| Did receive | 69.4 | 22.5 | 56.2 | | |
| Did not receive | 30.6 | 77.5 | 43.8 | | |
| | | | | 34.359384 | P < .001 |

[a] The probability of obtaining a value of the test statistic equal to or greater than the computed value, if the null hypothesis is true.

of the University, grades earned in these courses are usually lower than grades earned in the General College. Therefore, to avoid a bias against the capable General College students whose grades may have been affected adversely by courses taken outside the General College, the mean grade point averages are computed on the basis of General College credits only. Another complicating factor was the rate of attrition in the General College. Approximately 20 percent of entering students are finally awarded the associate in arts degree. Receipt or non-receipt of the associate in arts degree did not in itself furnish a satisfactory measure of achievement. Students of high achievement as well as those of low achievement may not receive the degree, since high achievers are more likely to be accepted into another college before they graduate from the General College. For this reason, the total number of credits completed, though not a reliable measure of achievement, was considered to be a factor that might differentiate retailing and selling students from other General College students, since all the courses required or suggested for retailing and selling students are in the General College.

Although highly significant differences appeared on the factors of grade point average and number of credits, these differences had to be cautiously interpreted in terms of the considerations reviewed. In comparing the grade point average of the retailing and selling group with that of group III, which most closely resembles the retailing group in terms of amount of college work completed, the study indicated no difference. Group II was lower, but since this group consisted of an unrestricted sample of entering General College students, this difference was expected.

On the factor of whether or not the associate in arts degree was awarded, the difference in the three groups was significant at the .001 level. The difference was in the expected direction, with the retailing group having the highest proportion receiving degrees and group II having the lowest proportion.

The only reasonable conclusions from the data concerning achievement are that groups I and III are quite similar in achievement as measured by grade point average and credits earned while enrolled in the General College. Group II differs from both I and III in regard to the number of credits earned; this difference is explained by the make-up of the groups.

Table 2 summarizes the data compiled from the results of the Strong Vocational Interest Blank (SVIB) completed by the students when they entered the University of Minnesota. The scores were analyzed by the pattern analysis system developed by Stephenson (1961). Because of the small number of female students in the sample groups and the different SVIB scales used for women, only male SVIB scores were included in this analysis. Only the following four occupational scales were included in this report:

| | |
|---|---|
| Group IV | Technical-Mechanical |
| Group V | Social Service |
| Group VIII | Business-Detail |
| Group IX | Business-Contact |

The other scales were omitted either because they were single occupational scales -- those labeled certified public accountant, musician, president of manufacturing concern -- or because upon preliminary investigation they did not indicate primary, secondary, or reject patterns in any appreciable proportion.

TABLE 2

Strong Vocational Interest Blank Results (Group I, II and III)

| Occupational Group | Percents I | II | III | Test Statistic | Probability[2] |
|---|---|---|---|---|---|
| Technical-Mechanical | | | | | |
| Primary-Secondary | 33.3 | 50.0 | 56.9 | | |
| Reject | 30.0 | 12.5 | 13.7 | | |
| Other | 36.7 | 37.5 | 29.4 | | |
| | | | | 6.381540 | .10<P<.25 |
| Social Service | | | | | |
| Primary-Secondary | 16.7 | 25.0 | 15.7 | | |
| Reject | 43.3 | 40.0 | 39.2 | | |
| Other | 40.0 | 35.0 | 45.1 | | |
| | | | | 1.788138 | .50<P |
| Business Detail | | | | | |
| Primary-Secondary | 66.7 | 42.5 | 35.3 | | |
| Reject | 3.3 | 7.5 | 7.8 | | |
| Other | 30.0 | 50.0 | 56.9 | | |
| | | | | 7.753801 | .10<P<.25 |
| Business Contact | | | | | |
| Primary-Secondary | 66.7 | 25.0 | 15.7 | | |
| Reject | 3.3 | 20.0 | 23.5 | | |
| Other | 30.0 | 55.0 | 60.8 | | |
| | | | | 24.75071 | P<.001 |

[a]The probability of obtaining a value of the test statistic equal to or greater than the computed value, if the null hypothesis is true.

There was a definite tendency for the retailing group (group 1) to indicate a primary or secondary interest pattern on the business-detail and business-contact scales. The business-detail scale is usually associated with the office and clerical occupations, whereas the business-contact scale is associated with selling or sales related occupations. On both of these scales, two-thirds of group I had a primary or secondary interest pattern, and only 3.3 percent rejected these two scales. In the case of groups II and III, interest patterns were much less evident, although both of these groups were much more inclined to show interest on the business-detail scale than on the business-contact. A rather small percentage, 7.5 percent for group II and 7.8 percent for group III, rejected the business-contact scale. The business-contact scale was the only one on which a significant difference existed. The difference in the three groups on this scale was significant at the .001 level.

On the technical-mechanical scale and the social service scale, the most notable difference was that a large proportion of the retailing and selling students indicated rejection on the technical-mechanical scale and correspondingly less primary or secondary interest than the other groups on this same scale. Patterns for groups II and III on this scale were quite similar to each other, both groups displaying relatively strong primary and secondary patterns and weak reject patterns. On the social service scale, all of the groups indicated high rejection and low primary-secondary patterns.

In general, although a statistically significant difference in the three groups was indicated only on one scale, the differences that did exist in the sample groups were those that would be expected. Those students who elected and persisted in a vocationally oriented,

business related program displayed interests, as measured by the SVIB, quite similar to those of people employed in business occupations. Students who did not elect the Retailing and Selling Program but who completed at least six quarters of work in the General College tended to have interests less related to business occupations, particularly those associated with sales-type business occupations. For all the sample groups there tended to be a high degree of rejection and low level of primary or secondary interest in the social service group of occupations.

Hypothesis 2. There are no differences in the occupational patterns of the two populations.

Table 3 indicates the type and location of the first position held by the students after leaving the General College as well as the type and location of their most current position. No significant differences were observed in the groups concerning the type of the student's first job, the length of time that the entry position was held, or the manner in which the student was informed of or obtained his first job. There was a greater tendency, however, for group II respondents to have had first jobs that were not classified in the professional-technical or sales-clerical categories and to have remained in their first job for a shorter period of time. For the current jobs, however, there was a notable reversal of some of these tendencies. Group II students now held a much larger proportion of jobs classified as professional or managerial than they had held originally and a much smaller proportion of jobs classified as clerical or sales. Group I students were currently employed in the various job categories in almost the same proportion as originally, but group III students had experienced a reduction in the proportion of professional-technical positions and an increase in the proportion of clerical-sales positions.

TABLE 3

Employment Experience Factors (Groups I, II and III)

| Variable | I | II | III | Test Statistic Chi-square | Probability[a] |
|---|---|---|---|---|---|
| Type of First Job | | | | | |
| Professional-Technical | 45.7 | 35.4 | 44.8 | | |
| Sales-Clerical | 47.8 | 45.8 | 44.8 | | |
| Other | 6.5 | 18.8 | 10.4 | | |
| | | | | 3.943792 | .25<P<.50 |
| Location of First Job | | | | | |
| Twin City | 84.8 | 75.0 | 74.1 | | |
| Minnesota | 6.5 | 10.4 | 6.9 | | |
| Out of state | 9.7 | 14.6 | 19.0 | | |
| | | | | 2.443552 | .50<P |
| Type Current Job | | | | | |
| Professional-Technical | 46.7 | 65.0 | 24.0 | | |
| Clerical-Sales | 48.9 | 20.0 | 60.0 | | |
| Other | 4.4 | 15.0 | 16.0 | | |
| | | | | 11.484990 | .02<P<.025 |
| Location Current Job | | | | | |
| Twin City | 57.8 | 27.5 | 22.0 | | |
| Minnesota | 8.9 | 7.5 | 10.0 | | |
| Out of state | 33.3 | 65.0 | 68.0 | | |
| | | | | 9.027720 | .05<P<.10 |
| Length in Months | | | | | |
| First Job | 29.7 | 23.0 | 29.2 | 1.250 | .50<P |
| Current Job | 28.8 | 36.1 | 30.0 | 1.000 | .50<P |

[a]The probability of obtaining a value of the test statistic equal to or greater than the computed value, if the null hypothesis is true.

The difference in the type of current job in the three groups was significant at the .025 level.

Groups I and III remained very similar to each other in the length of time that they had held their present jobs. Group II students, who had remained in their first job for a shorter period of time than did those of groups I or III, tended to have been employed in their present jobs for a substantially longer period of time.

On the question of how the subjects obtained or were informed of their jobs, responses were extremely diverse with no significant differences in the three groups. Contacts through family or friends, the use of a placement service, or direct application were the most commonly used methods for obtaining the first job. However, in the case of the retailing and selling students, 23.3 percent of them continued on the job they held while participating in the program. On later jobs there appeared to be less reliance on family or friends and more of a tendency to obtain new jobs through contacts made in previous positions.

Although differences were not significant, there was a tendency for Retailing and Selling Program graduates not only to locate but also to remain in the Minneapolis-Saint Paul area to a greater extent than was true of the non-retailing groups.

## FINDINGS OF THE STUDY-SECONDARY POPULATIONS

Hypothesis 1. There are no differences between retailing and selling students and non-retailing and selling students on selected background characteristics.

Table 4 summarizes the data relevant to ability and achievement for groups IV, V, and VI. On both high school rank and Minnesota Scholastic Aptitude Test (MSAT) scores a significant difference was

found to exist among the three groups. In the case of high school rank, the difference was significant at the .005 level; on MSAT scores the difference was significant at the .05 level; on MSAT scores the difference was significant at the .05 level. In both cases group IV had the highest mean score and group V the lowest mean score. The mean scores on high school rank for groups IV, V and VI were 37.7 24.1 and 31.3 respectively. The MSAT mean scores were 291., 19.0 and 26.3 respectively. A similar relationship existed on Cooperative English scores, with group IV having the highest mean score and group V the lowest. On the latter variable however, the difference was not significant.

In general, regarding measures of academic potential, a difference between retailing and non-retailing students appears to exist in the more recent General College students. This difference does not exist in the earlier groups studies. In addition, the differences that do exist lie in a consistent direction. This is not the case for the earlier groups. The generally lower scores on ability measures for the more recent General College sample groups, particularly on high school rank, was a finding that was inconsistent with other evidence that had indicated the higher general ability levels of General College students. The possibility exists, however, that sample group V does not truly represent the more recent population of General College students. The mean MSAT and HSR scores for that sample group were 18.4 and 24.1 respectively, whereas on these same measures, the overall average scores for the entering freshman class fall, 1964, were 23.6 and 32.4 respectively.

On the achievement factor of cumulative grade point, significant differences did not exist for the secondary groups. The differences in mean scores that did exist were of the same nature, however, with

TABLE 4

Measures of Ability and Achievement
Groups IV, V and VI

| Variable | IV | V | VI | Test Statistic | Probabili[a] |
|---|---|---|---|---|---|
| High School Rank | 37.3 | 24.1 | 31.3 | 5.3019 | P < .005 |
| MSAT | 27.8 | 18.4 | 20.7 | 3.1755 | .025 < P < . |
| Cooperative English | 27.9 | 19.0 | 26.3 | 1.2673 | .25 < P < .5 |
| Grade Point Average | 2.15 | 1.98 | 2.01 | <1.00 | .50 < P |
| Number Credits - General College | 67.1 | 51.5 | 70.1 | 12.4138 | P < .005 |
| Number Credits - Total | 69.9 | 57.1 | 76.5 | 10.8659 | P < .005 |
| Associate of Arts Degree | | | | | |
| Did receive | 10.9 | 10.0 | 6.7 | | |
| Did not receive | 89.1 | 90.0 | 93.3 | 1.0081 | .50 < P |

[a]The probability of obtaining a value of the test statistic equal to or greater than the computed value, if the null hypothesis is true.

the mean scores for the unrestricted non-retailing and selling group being lower than those of the other two groups. There was a highly significant difference in the groups on the factors of General College credits and total credits earned. Groups IV and VI, however, were very similar. The variability was primarily caused by group V. In general, there appeared to be very little difference between retailing and non-retailing students on measures of academic achievement when the groups are equated in terms of number of quarters of college work completed.

As indicated on Table 5, no significant differences were observed in the three groups on any of the occupational scales included in the analysis. The retailing and selling group, however, indicated a considerably stronger primary-secondary pattern on the business-contact scale than did either of the non-retailing and selling groups. The retailing group also had a stronger reject pattern and a weaker primary-secondary pattern on the social service scale than did the other groups. All groups had distinct primary or secondary interest patterns and very little rejection on the two business related SVIB scales but rather strong rejection patterns on the social service scale.

In general, on SVIB patterns for the more recent General College sample groups, the differences that existed were quite similar to the differences that were found in the earlier sample groups. The highly significant difference on the business scale that existed for the primary sample groups was no longer evident. The recent non-retailing groups did have a greater tendency to show primary or secondary patterns on the two business scales than was true of the earlier groups. There was little evidence to support the contention that the vocational interests of General College students enrolled in a vocationally oriented retailing and selling program were different from those of

students pursuing a more general education program. There was no evidence that the vocational interests of recent General College students, as measured by the SVIB, are different from those of earlier students.

## SUMMARY

The findings reported indicate that General College students who successfully complete the General College Retailing and Selling Program do differ from those students who take a more general program. Certain selected background characteristics and factors related to occupational experience reveal these differences. Of the nineteen background factors considered for the primary populations, statistically significant differences were found on seven. Of the six measures of academic ability used for comparisons, the GATB-G was the only one on which a significant difference appeared to exist. On the factor of expressed vocational interest, as measured by the SVIB, a significant difference existed at the .001 level on the business-contact scale. The retailing students had a stronger primary-secondary patterns and weaker reject patterns on that scale than did the non-retailing students.

Although a highly significant difference appeared on the factor of cumulative grade point average, most of this difference appeared in sample group II, the group which was least like the retailing group in amount of college work completed. Significant differences also were found on the variables of the number of credits earned and receipt of the associate in arts degree. For the reasons discussed earlier, however, these differences must be cautiously interpreted.

Analysis of employment experience factors for the primary sample groups indicated only one factor on which a statistically significant

TABLE 5

Strong Vocational Interest Blank Results (Groups IV, V and VI)

| Occupational Group | Percents IV | V | VI | Test Statistic | Probability[a] |
|---|---|---|---|---|---|
| Trades | | | | | |
| Primary-Secondary | 40.9 | 44.4 | 38.1 | | |
| Reject | 22.8 | 14.8 | 26.2 | | |
| Other | 36.3 | 40.8 | 35.7 | | |
| | | | | 1.257256 | .50<P |
| Social Service | | | | | |
| Primary-Secondary | 9.1 | 25.9 | 14.3 | | |
| Reject | 54.6 | 33.3 | 50.0 | | |
| Other | 36.3 | 40.8 | 35.7 | | |
| | | | | 3.863405 | .50<P |
| Business Detail | | | | | |
| Primary-Secondary | 50.0 | 55.6 | 47.6 | | |
| Reject | | 3.7 | 7.1 | | |
| Other | 50.0 | 41.7 | 45.3 | | |
| | | | | 1.523887 | .50<P |
| Sales | | | | | |
| Primary-Secondary | 68.2 | 40.7 | 45.2 | | |
| Reject | 9.0 | 7.4 | 11.9 | | |
| Other | 22.8 | 51.9 | 42.9 | | |
| | | | | 5.102279 | .25<P<.50 |

[a]The probability of obtaining a value of the test statistic equal to or greater than the computed value, if the null hypothesis is true.

difference existed. This factor was the type of current position held. The difference on that factor appeared to result primarily from the high proportion of group II students employed in professional-technical positions and the low proportion employed in sales-clerical jobs. On all other factors relating to employment, including job satisfaction, statistically significant differences could not be demonstrated.

The secondary sample groups, groups IV, V and VI, were studied to determine whether those differences found in earlier student groups were still evident in later groups. As was true for the primary populations, statistically significant differences were found on a number of background variables, but for the most part, these differences were found on a number of background variables from those on the primary groups. Whereas the primary groups differed on only one measure of academic ability--GATB-G--the secondary sample groups differed on both MSAT and HSR percentile scores. These differences were in a consistent direction, with the retailing students having the highest scores and the unrestricted non-retailing students having the lowest scores.

No significant differences appeared in the secondary sample groups on measures of vocational interest. This was in contrast to the primary groups among which a highly significant difference existed on the sales-contact scale of the SVIB.

A significant difference was not observed in the secondary groups on the factor of cumulative grade point average, whereas the difference in the primary group was highly significant on this factor.

## BIBLIOGRAPHY

Determan, Evelyn. "Evaluation of the Course Retailing and Selling in the General College," M.A. Thesis. University of Minnesota, 1949.

Meyer, Warren G. and William B. Logan. Review and Synthesis of Research in Distributive Education. Independent Study. Columbus: Center for Research and Leadership Development in Vocational and Technical Education, Ohio State University, 1967.

Stephenson, Richard R. "A New Pattern Analysis Technique for the SVIB," Journal of Counseling Psychology, Vol. 8, No. 4, 1961, p. 335.